

ABSTRACT

DOWNHOLE COMPRESSOR

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A downhole dynamic compressor comprises an electric motor having a stator 6 with stationary windings and an armature with permanent magnets 7 supported on gas bearings 9, 10 for rotation relative to the stator. The gas bearings 9 and 10 are arranged at the upstream and downstream opposite ends of the motor, respectively. The dynamic compressor has a bladed wheel 12 mounted on an overhanging end of the motor armature 7 that projects beyond the gas bearing 9 at the upstream end of the motor, whereby all the gas bearings of the compressor and the electric motor are arranged on the downstream side of the dynamic compressor.

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